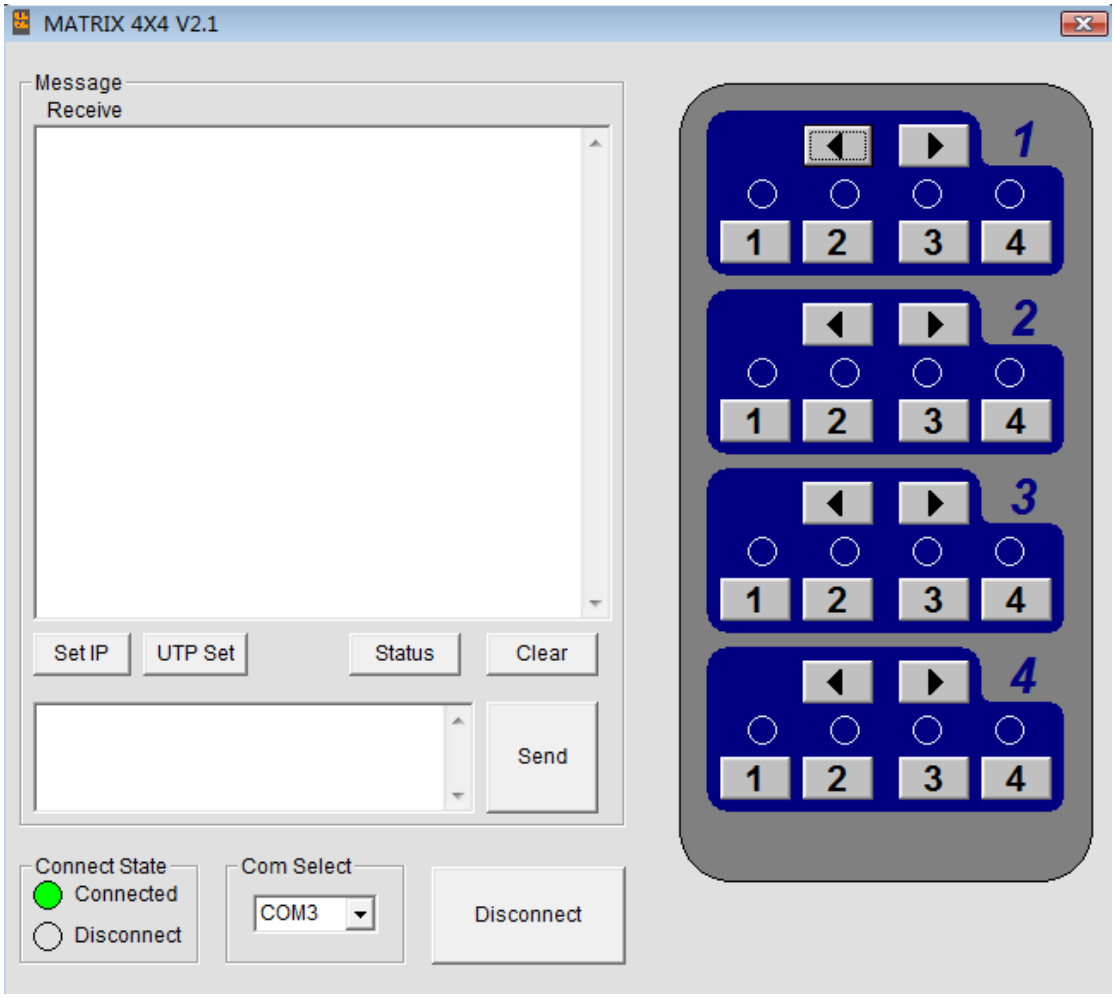
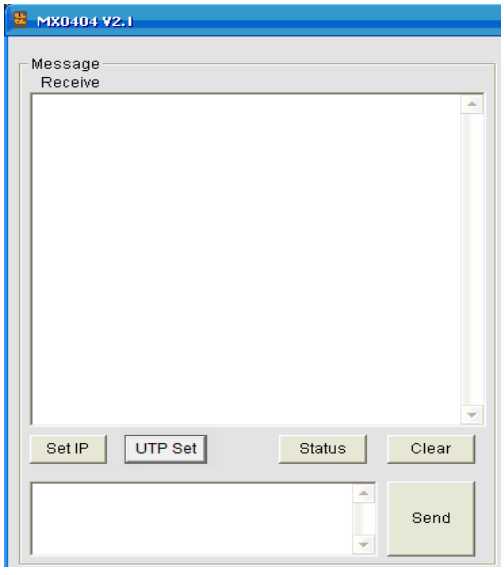
User Manual

1. The Interface of HDMI Matrix (SKU 1643 & 1644)

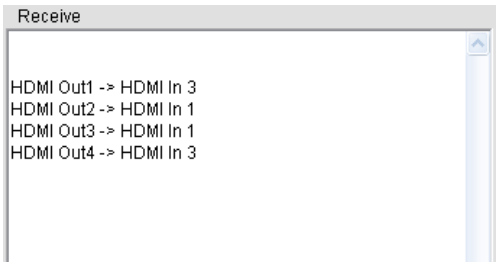


2. The Message Window



2.1 Receive Window

The "receive window" will show the message received from 4x4 Matrix. When you click the **Control Buttons** **(see step 4)** or send **Control Command** **(see 2.3)** to 4x4 Matrix, it will send out the message about "operation results" as below:



2.2 Connect Status

The connect status shows whether you connect the 1644 successfully or not. 4x4 Matrix_SC will check the connect status every 2 seconds.

2.3 Status Button

Click this button to read the status of 1644. The status is about which input is selected by the output.

3.The Com Status

3.1 connect state

Connect state shows the com open or not. If it is open, the state is green. Otherwise, the state is red.

3.2 com select

Select which com you used.

3.2 ISP button

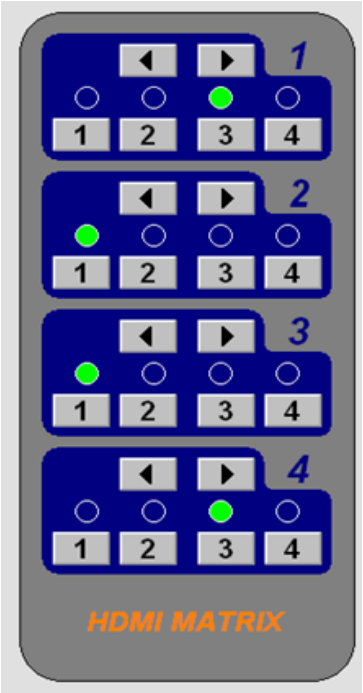
When you click this button, 1644 will enter ISP mode.

3.3 connect button

The word on this button will change as the connect state changes. If the word is “Disconnect”, then click this button, the com will close. If the word is “Connect”, then click this button, the com will open.

4. Control Buttons

The control buttons are as in this picture.



6.Control command format

If user want to write his own control software, below are data format and baud rate setting.

Com port setting:

Baud Rate:	9600 bps
Data bits:	8 bits
Parity:	None
Stop bits:	1 bit
Flow control:	None

The command format as follow:

cir + '_' + code + '↙'

"cir" is the key word, '_' is Space, "Code" is the Control code , '↙' is carriage return.

for example:

" cir 40↙"(hex: **63 69 72 20 34 30 0D 0A**), when the 4x4 Matrix received this command ,it will change the Outport4 status to the next input port. ("c"-0x63, "I"-0x69, "r"-0x72, " "-0x20, "4"-0x34, "0"-0x30, '↙'-0x0d0a)

7.Control code

4x4 Matrix:

Outport1	<“57”	>“41”	
1“09”	2“1D”	3“1F”	4“0D”
Outport2	< “1B”	> “11”	
1 “17”	2 “12”	3 “59”	4 “08”
Outport3	< “55”	> “48”	
1 “5E”	2 “06”	3 “05”	4 “03”
Outport4	< “07”	> “40”	
1 “18”	2 “44”	3 “0F”	4 “51”

Hex code list:

Output1 previous:

0x63 0x69 0x72 0x20 0x35 0x37 0x0D 0x0A

(ASCII: cir 61\r\n)

Output1 next:

0x63 0x69 0x72 0x20 0x34 0x31 0x0D 0x0A

Output 1 select in1:

0x63 0x69 0x72 0x20 0x30 0x39 0x0D 0x0A

Output 1 select in2:

0x63 0x69 0x72 0x20 0x31 0x44 0x0D 0x0A

Output 1 select in3:

0x63 0x69 0x72 0x20 0x31 0x46 0x0D 0x0A

Output 1 select in4:

0x63 0x69 0x72 0x20 0x30 0x44 0x0D 0x0A

Output2 previous:

0x63 0x69 0x72 0x20 0x31 0x42 0x0D 0x0A

Output2 next:

0x63 0x69 0x72 0x20 0x31 0x31 0x0D 0x0A

Output 2 select in1:

0x63 0x69 0x72 0x20 0x31 0x37 0x0D 0x0A

Output 2 select in2:

0x63 0x69 0x72 0x20 0x31 0x32 0x0D 0x0A

Output 2 select in3:

0x63 0x69 0x72 0x20 0x35 0x39 0x0D 0x0A

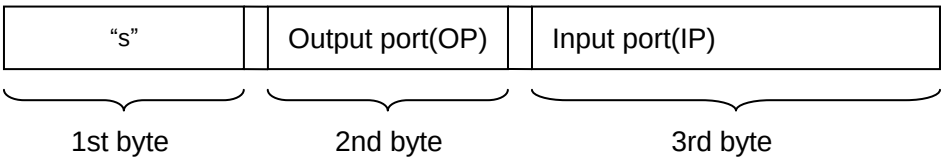
Output 2 select in4:

0x63 0x69 0x72 0x20 0x30 0x38 0x0D 0x0A

Output3 previous:
0x63 0x69 0x72 0x20 0x35 0x35 0x0D 0x0A
Output3 next:
0x63 0x69 0x72 0x20 0x34 0x38 0x0D 0x0A
Output 3 select in1:
0x63 0x69 0x72 0x20 0x35 0x45 0x0D 0x0A
Output 3 select in2:
0x63 0x69 0x72 0x20 0x30 0x36 0x0D 0x0A
Output 3 select in3:
0x63 0x69 0x72 0x20 0x30 0x35 0x0D 0x0A
Output 3 select in4:
0x63 0x69 0x72 0x20 0x30 0x33 0x0D 0x0A

Output4 previous:
0x63 0x69 0x72 0x20 0x30 0x37 0x0D 0x0A
Output4 next:
0x63 0x69 0x72 0x20 0x34 0x30 0x0D 0x0A
Output 4 select in1:
0x63 0x69 0x72 0x20 0x31 0x38 0x0D 0x0A
Output 4 select in2:
0x63 0x69 0x72 0x20 0x34 0x34 0x0D 0x0A
Output 4 select in3:
0x63 0x69 0x72 0x20 0x30 0x46 0x0D 0x0A
Output 4 select in4:
0x63 0x69 0x72 0x20 0x35 0x31 0x0D 0x0A

When you send a control command to the 4x4 Matrix, if succeeds, it will feedback current output port status to show which input port is selected. The return status format is as follows:



For example, if you send "cir 09↙" to 4x4 Matrix, if succeeds, it will feedback "s13", meaning OutPut1 selects InPut4.

Means	Return status
OP1->IP1	"s10"
OP1->IP2	"s11"
OP1->IP3	"s12"
OP1->IP4	"s13"
OP2->IP1	"s20"
OP2->IP2	"s21"
OP2->IP3	"s22"

OP2->IP4	“s23”
OP3->IP1	“s30”
OP3->IP2	“s31”
OP3->IP3	“s32”
OP3->IP4	“s33”
OP4->IP1	“s40”
OP4->IP2	“s41”
OP4->IP3	“s42”
OP4->IP4	“s43”

7、Read Status Command

The command length is 4 bytes.

bc + ‘_’ + ‘↙’

“bc” is the key word, ‘_’ is Space, ‘↙’ is carriage return.

When you send the read status command to 4x4 Matrix, if succeed, it will return the status of the OP(both OP1 and OP2).

For example: when you send this command to 4x4 Matrix, if succeed ,it will feedback ”s1xs2ys3zs4a”, which means OP1 selects IP(x+1) , OP2 selects IP(y+1), OP3 selects IP(z+1) ,OP4 selects IP(a+1). ”s12s23s33s40” means OP1 selects IP3, OP2 selects IP4, OP3 selects IP4 and OP4 selects IP1.

8、Web password reset

The command length is 4 bytes.

rpw+ ‘↙’

“rpw” is the key word , ‘↙’ is carriage return.

When you send the **Web password reset** command to 4x4 Matrix, if succeeds, it will feedback "rpw",and the web password will be set as "0000000000".